

INFOTECH

The Power of Technology: Unleashing the Superhero in Each Learner

Annette Lamb and Larry Johnson

I see, I listen, I write, I do . . . I learn!

Teacher librarians have superpowers. We know that learners need a variety of tools and resources to experience and understand the world. This is the power of technology and differentiation.

Rather than simply reading textbook pages, today's learners are actively involved and empowered in their own learning. They might use a document camera to analyze and scan global currency, then drag the image into Google Images to identify the country of origin, as shown here.

The Common Core State Standards Initiative (www.corestandards.org/) is being implemented throughout the United States. These new standards focus on learners as thinkers and producers. Students are involved in increasingly complex tasks, reading an

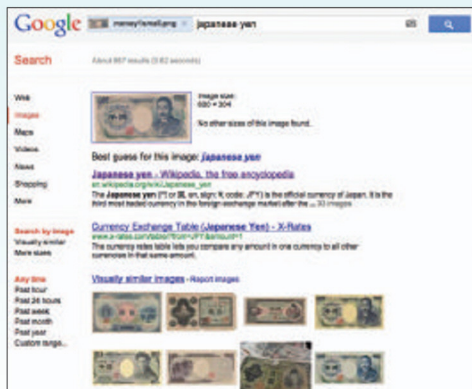


Image of Japanese currency identified using Google Images.



United Kingdom Explained from YouTube

array of texts, applying logic and evidence across the curriculum, and using real-world contexts for learning.

A student learning about the structure of the United Kingdom might use Google Earth for a visual examination of the geography, watch a YouTube video introduction to the place, and analyze a diagram to understand the relationships among the territories. Each element provides insights useful in learning.

FIVE POWERS

Let's explore five powers (plan, present, process, produce, promote passion) that educators employ to unleash the superhero in our students.



AllAboutBirds website

Use the power of technology to differentiate by organizing resources in meaningful ways to meet learner needs and interests.

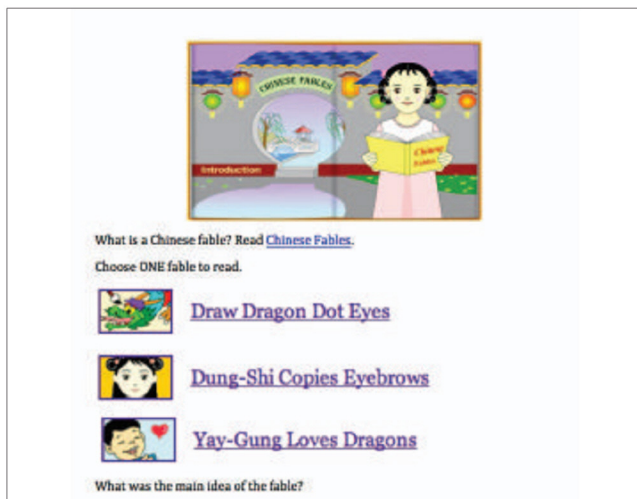
The Common Core standards place emphasis on real-world informational reading. From such government websites as USA.gov to electronic databases available through most state libraries, there are endless sources for informational reading.

Informational websites provide opportunities for real-world reading. Work with classroom teachers to create pathfinders for topics within each subject area. Include quality digital resources like the website AllAboutBirds (www.allaboutbirds.org) and the iPad app iBird Pro.

Link quality websites to your online library catalog for easy access. For instance, authors like Jan Brett (www.janbrett.com), Orson Scott Card (www.hatrack.com/), Patrick Carman (www.patrickcarman.com/), Neil Gaiman (www.neilgaiman.com/), and Dan Gutman (www.myweird-classroomclub.com/news-and-resources) provide interesting resources and activities to go with many of their books, including games, podcasts, and articles.


Gather and organize resources that provide alternative ways to present information. For instance, an infographic is a visual representation of information providing the big picture of a topic that might otherwise be difficult to understand. The Unlocking the Mystery of Humpback Whales (www.mauinformationguide.com/images/infographics/humpback-whales.jpg) infographic uses a combination of charts, graphics, maps, illustrations, and diagrams to understand whales. Tools such as Pinterest (pinterest.com/) are an effective way to share infographic resources in different categories.


Students can easily become overwhelmed and distracted when working online. Look for ways to meet individual needs by directing attention to specific resources, providing choices, and organizing assignments in an easy-to-access space. Use tools that you are already comfortable with and proficient in, such as Microsoft




What is a Chinese fable? Read [Chinese Fables](#).

Choose ONE fable to read.

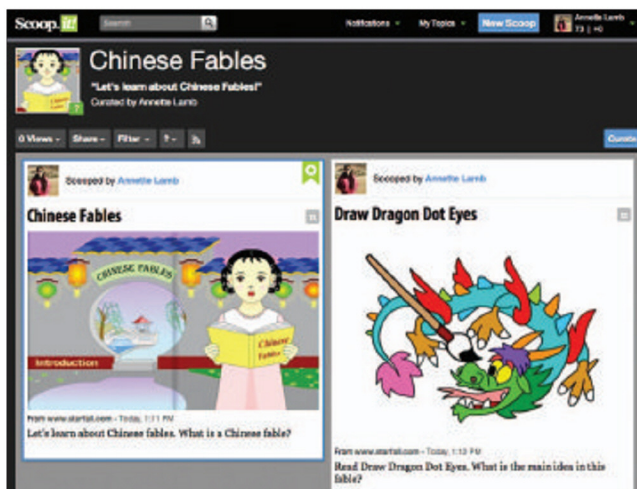
 [Draw Dragon Dot Eyes](#)

 [Dung-Shi Copies Eyebrows](#)

 [Yay-Gung Loves Dragons](#)

What was the main idea of the fable?

Chinese Fables electronic worksheet.



Scoop.it! Chinese Fables

"Let's learn about Chinese Fables!" Curated by Annette Laro

Chinese Fables

Draw Dragon Dot Eyes

Read Draw Dragons Dot Eyes. What is the main idea in this fable?

Chinese Fables Scoop.it! website.

Word and Google Docs, to create electronic worksheets and hot lists. You might provide links to three Chinese fables from the Starfall (starfall.com) website and ask students to write about the main idea in one of the fables and then create their own.

You could also use one of the many content curation tools like ScoopIt (www.scoop.it/), Bagtheweb (bagtheweb.com/), or only2clicks (www.only2clicks.com/) to organize links and activities.

Differentiate through technology resources with many levels of depth, varied reading levels, and choices in content.

Present

Use the power of technology to differentiate by reaching multiple learner senses through multimedia experiences.

One of the big benefits of technology is the ability to reach young people through varied channels of communication. The Common Core standards stress the use of a variety of informational resources and tools in learning. Think of new ways for students to explore reading and writing. Use websites like Visuwords (www.visuwords.com/) and Lexpedia (www.lexipedia.com/) as an alternative to traditional print thesaurus.

Although many people still rely on print textbooks, encourage teachers to seek out multimedia and interactive materials associated with subject area learning. Many publishers provide free interactive content that can be used even if a particular textbook is not available in their school. For instance, the Harcourt School Science Up Close Interactive Magnets and Compasses (goo.gl/mgOm0) could be used in any elementary science curriculum, and the Glencoe Writing Process (goo.gl/9B916) website provides useful tools for writing.

If you're looking for a specific topic, try doing a Google Search and add the word "interactive," such as *rock cycle interactive*, and you'll find the Annenberg Foundation's Interactive (www.learner.org/interactives/rockcycle/) page.

The interactive Who Comes to the Feedback (www.teachersdomain.org/asset/evscps_int_feeder/) provides young learners with opportunities to view images, watch videos, and listen to text read aloud.

The Inspiring Middle School Literacy (www.teachersdomain.org/special/adlit/) project provides dozens of self-paced lessons designed to enhance the literacy skills of struggling readers in grades five through eight. Users watch a video, read texts, answer questions, and write their thoughts.

Seek transmedia experiences, where readers seamlessly move from technology



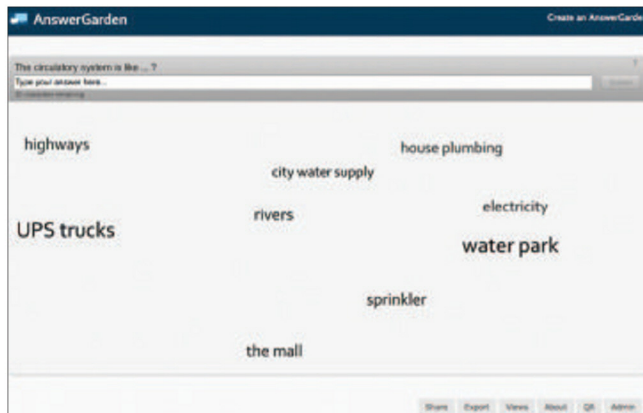
Infinity Ring website.

to technology, experiencing and participating in the story. The latest multiplatform book series from Scholastic is called Infinity Ring. Participants use the Infinity Ring (www.infinityring.com/) website to play games, complete activities, and extend the reading experience across technology devices including laptops, tablets, and smartphones.

Reach multiple learner senses through multimedia and multiplatform resources that involve text, graphics, audio, video, and tactile experiences.

Process

Use the power of technology to differentiate by extending the choices and tools for communication.



AnswerGarden.

The Common Core standards recognize the importance of students as researchers. This is the perfect opportunity for school librarians to connect the ISTE[Q: spell out?] National Educational Technology Standards for students and the AASL[Q: spell out?] Standards for the 21st Century Learner with content-area standards across the curriculum.

Add power to brainstorming topics by using technology. The AnswerGarden (answergarden.ch) tool is a fun way to collect ideas. Users ask a question or post a statement to be completed by students. The ideas generated can then be used in writing assignments. For instance, you may ask learners to provide analogies based on a question such as "The circulatory system is like . . . ?"

Google Moderator (google.com/moderator) is a new tool that lets students pose questions, create replies, and vote on issues. For instance, Minecraft (minecraft.net) is an increasingly popular tool for world building and great for practicing programming. There's a Google Moderator group for those interested in sharing ideas about Minecraft.

Increasingly, iPads and other types of tablets are available to students. Many online tools and apps for planning projects, creating concept maps, and visualizing data can be used to help students through the inquiry process. Homework helpers can even help students track their assignments.

Many online tools have social and collaborative features that allow students to share their ideas in a common space. After experiencing a picture book at the Storyline website (storylineonline.net), primary school children can use Wallwisher (wallwisher.com) to share their thoughts about the characters in the stories.

Differentiate through technology with activities that honor preferences, choices, and flexibility.

Product

Use the power of technology to differentiate by providing a variety of options for sharing student understandings.



Wallwisher.



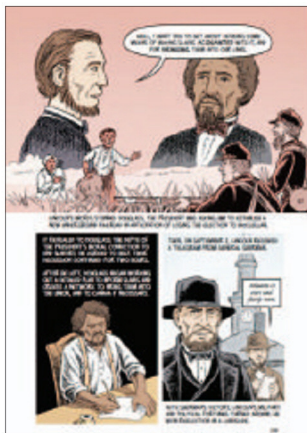
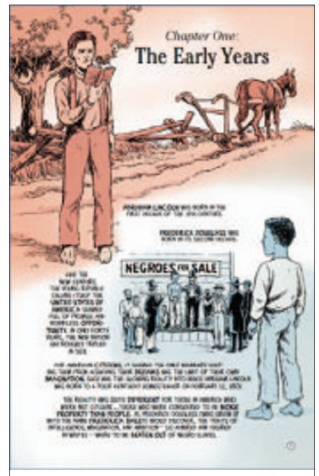
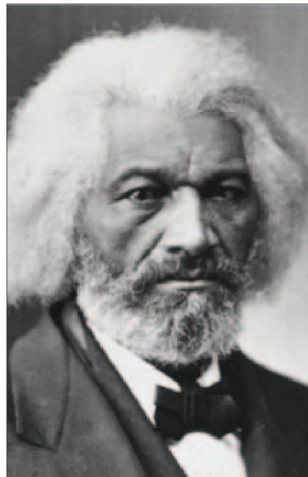
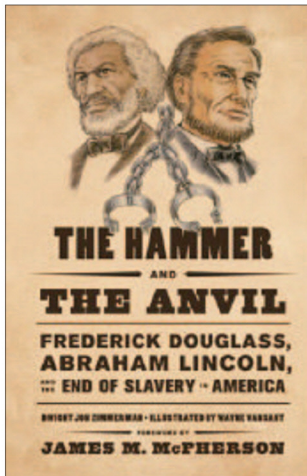
Novels on Location.

The Common Core standards stress real-world connections and authentic research activities. Rather than producing term papers and reports, look for interesting ways for young people to communicate their understandings.

Integrate easy-to-use tools that can be used for many different types of assignments. Storytelling tools such as Storybird (storybird.com), comic creators such as Pixton (pixton.com), and poster tools such as Glogster (glogster.com) are examples of tools that can be used across the curriculum.

Connect products to geographic locations using Google Maps (maps.google.com). Use Novels on Location (novelsonlocation.com) to inspire your own novel location project for a particular country, region, or state.

Redesign assessments and assessments. Read engaging works of nonfiction, such as the graphic history *The Hammer and the Anvil: Frederick Douglass, Abraham Lincoln, and the End of Slavery in America* by Dwight Jon Zimmerman. This book traces the lives of Douglass and Lin-



The Hammer and the Anvil by Dwight Jon Zimmerman

coln and includes a section showing their interactions.

Ask students to judge the accuracy of the book by verifying and expanding the information found in the work. Do the visuals convey accurate representations? Compare visuals to historical photos. Ask students to use primary sources to defend their arguments. Then involve students in creating their own link between two his-

torical figures, such as Gandhi and Martin Luther King Jr.

Promote multimedia products that involve students in recording their voices, such as Voki (voki.com) or Babberize (blabberize.com/).

Differentiate through technology with child-centered, open-ended approaches to demonstrate understandings.

Promote Passion

Use the power of technology to differentiate by promoting a passion for learning.

A primary focus on the Common Core standards is literacy in all its forms, from serious documentaries to silly short stories. The popular parody novel *Pride and Prejudice and Zombies* has spawned a graphic novel, video game, and interactive ebook version to enhance the fun. The key to un-

Using technology in learning doesn't need to be complicated or time consuming. Instead, it should provide resources and tools that empower learners and promote a passion for learning.

leashing a passion for learning is convincing young people to embrace learning both inside and outside school.

Virtual manipulatives provide students with a unique way to practice and communicate understandings. Exploriments (exploriments.com) includes simulation-based interactives that enhance conceptual understanding of science and math. Students explore and experiment with concepts. For instance, the Equations (exploriments.com/explorifeatureframe7.html) interactive provides an introduction to algebraic equations using a pan balance and assorted objects.

Make real-world connections that students find interesting and motivating. Get the Math (thirteen.org/get-the-math) is a multimedia project about algebra in the real world focusing on math in music, fashion, and video games. Involve students in STEM (science, technology, engineering, and math) activities in your library. Use digital cameras to record and share the experiments and experiences. Share them on your library website.

Using technology in learning doesn't need to be complicated or time consuming. Instead, it should provide resources and tools that empower learners and promote a passion for learning. For some children, reading the classic picture books *The Tiny*

Seed by Eric Carle or *The Carrot Seed* by Ruth Krauss will spur their imagination. For other students, seeing a time-lapse video of a Radish Seed (youtu.be/d26AhcKeBfE) growing might be the catalyst to a lifelong passion for science. The key is to help each child find his or her passion for learning.

Differentiate through technology with attention to affective aspects and the importance of life-long learning.

BRINGING THE POWER OF TECHNOLOGY TO THE SCHOOL LIBRARY

Today's school libraries are filled with powerful tools and resources to promote learning, but don't toss the markers, butcher-block paper, and glue. Technology won't address all the needs of our students. It simply extends your powers by providing options and opportunities.

Start with one website, database, or app to incorporate into a library-classroom collaboration. The PBS NewsHour Student Reporting Labs (studentreportinglabs.com) project serves as a great example. This website connects "students with a network of public broadcasting mentors, an innovative journalism curriculum and an online collaborative space to develop digital media, critical thinking and communica-

tion skills while producing original news reports."

Plan. Organize student videos that can serve as examples of new reporting.

Present. Provide new content through multimedia experiences.

Process. Extend the choices for communication to include video production tools.

Produce. Promote a variety of options for sharing news content.

Passion. Promote a passion for learning by sharing beyond the classroom on social media such as CNN iReport (ireport.cnn.com).

Superheroes love their gadgets, but sometimes all they need is a rope and a little assistance from the sidekick. Help students unleash the power of learning.

Adapted from the presentation The Power of Technology: Unleashing the Superhero in Each Learner. Available at <http://eduscapes.com/sessions/superpower/>

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